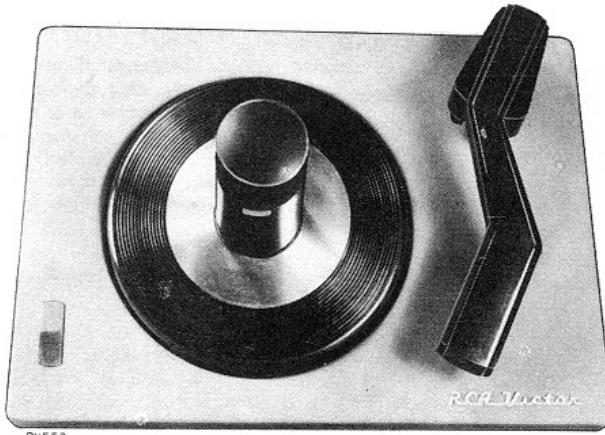




# RCA VICTOR



## RP-190 Series

45 R.P.M. Automatic Record Changer

## SERVICE DATA

— 1950 No. 14 —

PREPARED BY RCA SERVICE CO., INC.  
FOR

RADIO CORPORATION OF AMERICA  
RCA VICTOR RADIO AND "VICTROLA" DIVISION  
CAMDEN, N. J., U. S. A.

### MODEL IDENTIFICATION

|           |  |
|-----------|--|
| RP-190-1  | Uses crystal pickup Stock No. 74067.   |
| RP-190-1a | Models 45-EY-2, 45-EY-3, 45-J-2 and 9Y510.   |
| RP-190-2  | Uses crystal pickup Stock No. 75575. Models  |
| RP-190-2a | A-82, A-91, A-101, A-108, 45-EY-4, 45-W-9,<br>45-W-10, 2T81, 4T141, 6T84, 6T86, 6T87, 7T143,<br>9T89, 9T147 and 45-EY-4.   |
| RP-190-3  | Uses crystal pickup Stock No. 74067 and special<br>motor (85 volts). Model 45-EY-3.  |
| RP-190-4  | Uses crystal pickup Stock No. 74067 and different<br>"On-Off" switch, otherwise same as RP-190-1<br>and RP-190-1a.   |
| RP-190-5  | Uses ceramic pickup Stock No. 76297, different<br>counterbalance spring and motor suitable for 50<br>cycle conversion. Otherwise same as RP-190-4a.<br>Models QEY4, QEY5, QJY2 and QEY6. |
| RP-190-6  | Uses crystal pickup Stock No. 74067. Otherwise<br>same as RP-190-4a.   |
| RP-190A-1 | Uses crystal pickup Stock No. 75575. Does not<br>use "On-Off" switch. Otherwise same as RP-<br>190-2a. Models 15-E and 15-E-1.   |
| RP-190A-2 | Uses crystal pickup Stock No. 74067. Five parts<br>differ in color only. Otherwise same as RP-<br>190-1a. Model 45-EY-26.  |
| RP-190A-3 | Uses ceramic pickup Stock No. 79791. Item 25 dif-<br>ferent and Item 31 not used. Otherwise same as<br>RP-190-2, Model 45-HY-4.  |
| RP-190B-1 | Uses crystal pickup Stock No. 74067. See parts<br>list describing difference between RP-190B-1 and<br>RP-190-1, Models 6-EY-1, 6-JY-1.   |

NOTE: RP-190-1 vs. RP-190-1a.

RP-190-2 vs. RP-190-2a, etc.

Two types of cycling slides and counterbalance assemblies  
have been used. The "a" in the identification indicates the use  
of the late type assemblies. See Page 10 for details.

### CAUTION

1. Avoid handling the pickup arm when the mechanism is in cycle.
2. Do not use force to release a jam.
3. Do not try to remove the records on the turntable if the turntable is stopped in cycle.
4. If the separator knives protrude from the center post when the mechanism is out of cycle, push the "start-reject" knob to reject and the condition should be corrected automatically.

### AUTOMATIC OPERATION

1. Place a stack of records over the center post, with the desired selections upward, the last record to be played on top.
2. Pull the "start-reject" knob to "start" (forward) and release. The mechanism will automatically play in sequence one side of each record stacked on the separator shelves.

3. To reject a record being played, pull the "start-reject" knob.
4. At conclusion of playing and as the last record is being repated, lift the pickup arm and place on its rest. Turn off the power to the drive motor by pushing back on control knob.
5. Remove the stack of records by lifting them straight up.

### SPECIFICATIONS

|                   |                                 |
|-------------------|---------------------------------|
| Turntable speed   | 45 r.p.m.                       |
| Records used      | RCA type seven-inch fine groove |
| Record capacity   | Up to 14 records                |
| Pickup force      | Approx. 5 grams                 |
| Stylus tip radius | .001 inch                       |
| Power supply      | 105-125 volts, 60 cycle, a.c.   |

(RP-190-3 uses 85 volt, 60 cycle motor.)

(RP-190-5 may be converted to 50 cycle operation.)

### LUBRICATION

A light machine oil (SAE No. 10) should be used to oil the bearings of the drive motor.

On all bearing surfaces, excepting the motor bearings, Houghton STA-PUT No. 320, or equivalent, should be used. On all other sliding surfaces, STA-PUT No. 512, or equivalent, is recommended. STA-PUT can be purchased from E. F. Houghton & Co., 303 W. Lehigh Ave., Philadelphia, Pa.

(Do not oil or grease record separator shelves.)

It is important that the drive motor spindle and the rubber tire on the idler wheel be kept clean and free from oil or grease, dirt, or any foreign material at all times. Carbon tetrachloride or naphtha is satisfactory for cleaning these parts.

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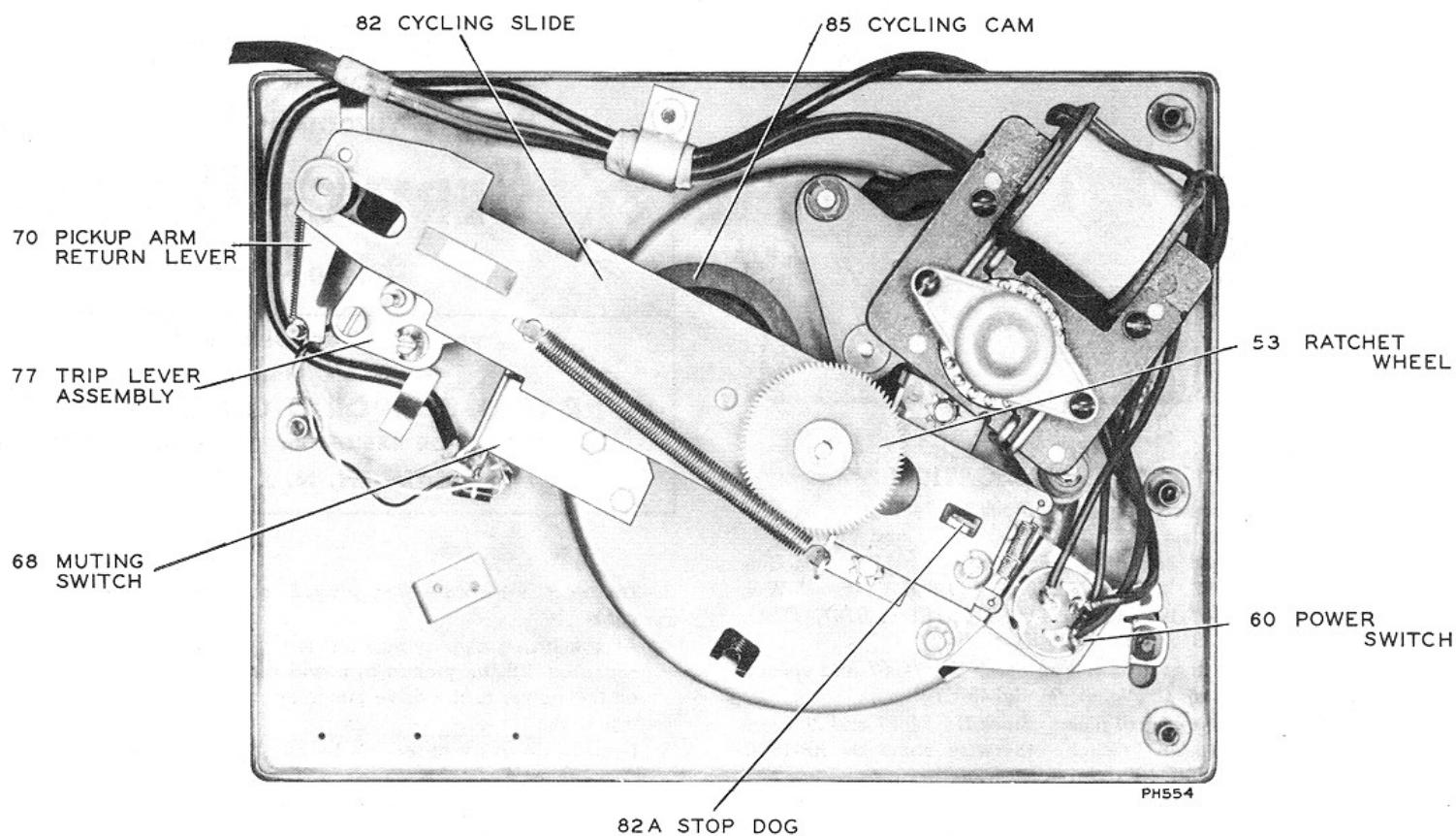


Fig. 1

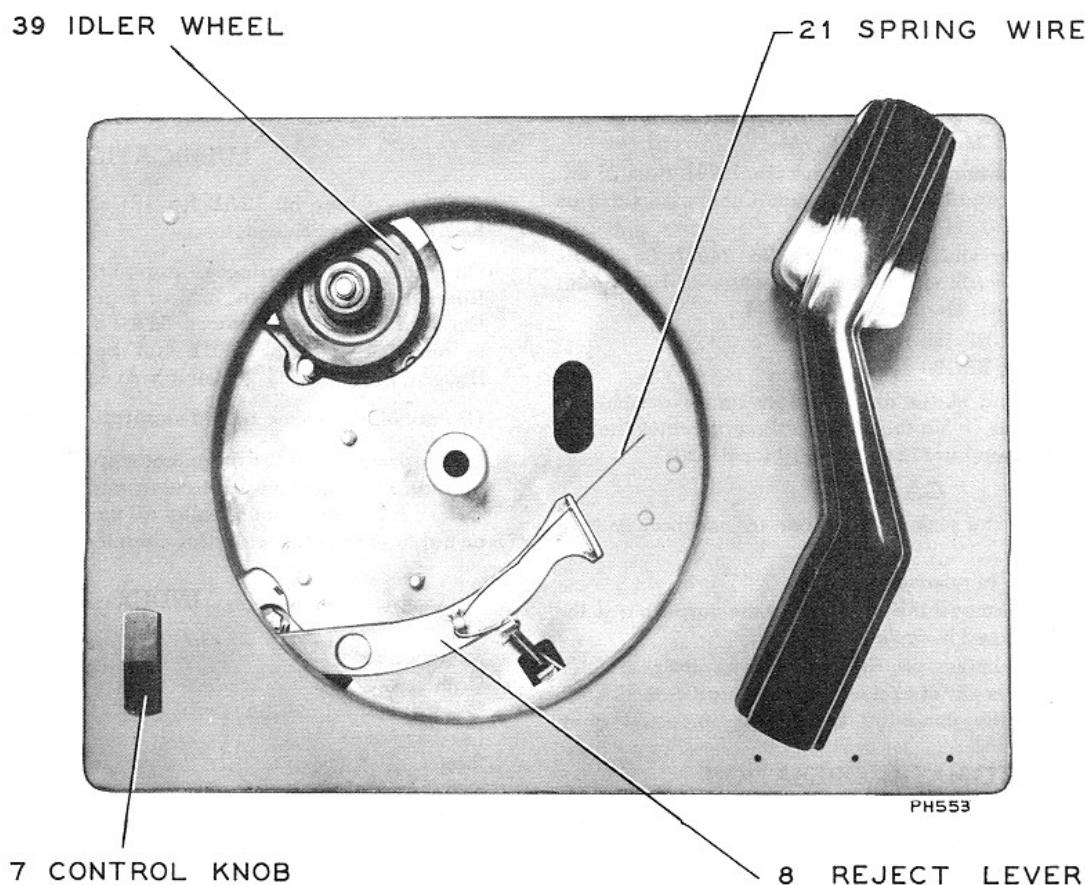


Fig. 2

**Trip Lever (77)**

The trip lever is mounted on the bottom end of the pickup arm vertical pivot shaft. The function is to transfer the movement of the pickup arm to parts of the operating mechanism below the motor board. The end of the trip lever contacts stud on cycling cam thereby starts tripping action.

**Pickup Arm Return Lever (70)**

The function of the pickup arm return lever is to provide a force necessary to push the pickup into landing position. The end of the pickup arm return lever is curved so as to provide a stop for trip lever. This stop determines landing position of the pickup.

**Function of Principal Parts****Reject Lever (22)**

The function of the reject lever is to transfer the action of the control knob to the cycling cam thereby starting a change cycle.

**Muting Switch (68)**

The function of the muting switch is to short the pickup leads to prevent amplifying of mechanical noise of the mechanism during change cycle.

**Cycling Cam (85)**

The cycling cam is mounted on the cycling slide. The function of the cam is to transfer the rotary motion of the turntable shaft into sliding motion of the cycling slide.

**Stop Dog (82A)**

The stop dog is mounted on the end of cycling slide. The function of the stop dog is to engage the ratchet wheel on the separator shaft and prevent it from rotating, at the exact moment during change cycle.

**Ratchet Wheel (53)**

The function of the ratchet wheel located on the end of the separator shaft is to keep the separator shaft stationary at the proper time, so as to actuate the separator mechanism inside the centerpost.

**Cycling Slide (82)**

The cycling slide is the main connecting medium between the various moving parts.

**Cycle of Operation**

| FUNCTION                                  | EXPLANATION  |
|---|--|
| Place a stack of records over centerpost. | <ol style="list-style-type: none"> <li>1. Records rest on separator shelves protruding from either side of the centerpost.</li> </ol>  |
| Push control knob to reject.              | <ol style="list-style-type: none"> <li>1. The control first actuates the power switch applying power to the drive motor. This starts the turntable rotating.</li> <li>2. Further movement of the control knob actuates the reject lever assembly (8) which contacts the stud mounted on the eccentric cycling cam and moves it slightly.</li> </ol>  |
| Cycling starts.                           | <ol style="list-style-type: none"> <li>1. The slight movement of the eccentric cycling cam (85) is sufficient for engagement with the rotating knurled roller (62) mounted on turntable shaft.</li> <li>2. The eccentric cycling cam which is mounted on the cycling slide (82) pushes the slide in the direction of the pickup arm pivot. In so doing tension is increased on the slide return spring (89).</li> <li>3. The tab on the cycling slide moves back permitting muting switch to close.</li> </ol> |

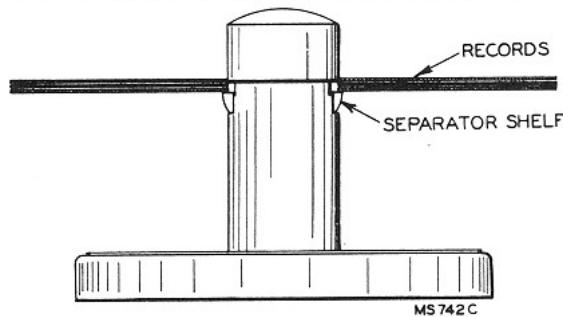


Fig. 3

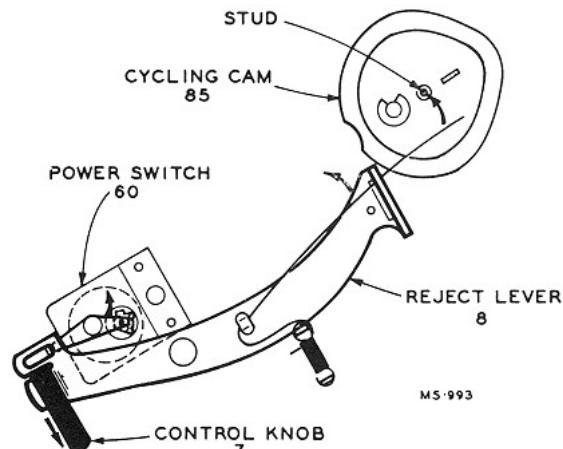


Fig. 4

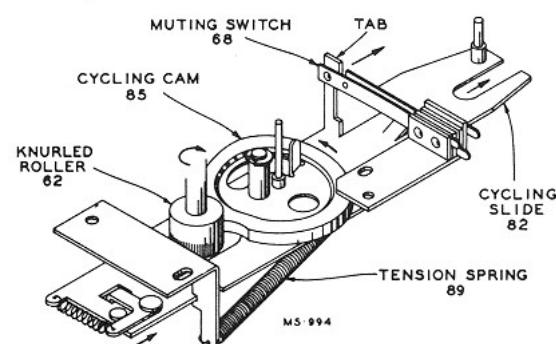


Fig. 5

## Cycle of Operation—Continued

Pickup raises from the rest.

- As the cycling slide continues to move in the direction of the pickup arm pivot the small incline pressed in the slide causes the elevating rod (74) to lift the pickup arm from the rest.
- The raised pickup arm moves inward slightly from the inward force of the pickup arm return lever (70), until the stud on the trip lever (77) assembly comes against edge of the cycling slide.
- The cycling slide continues to move further, which pushes the trip lever back. The eccentric landing adjustment stud (79) contacts and pushes the pickup arm return lever (70) against the tension of the return spring (69).

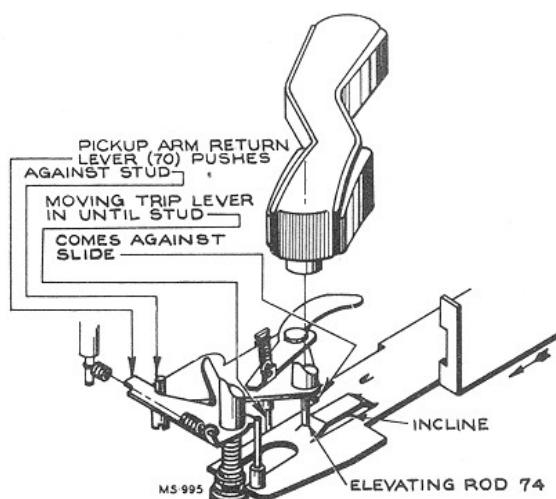


Fig. 7

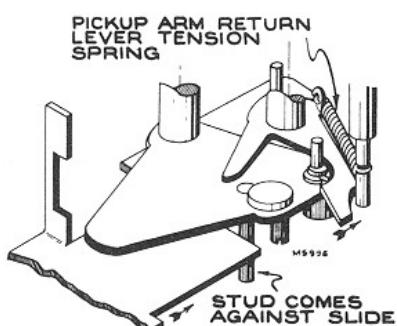


Fig. 6

Separator knives separate the lower record from the stack and the lower record drops to the turntable.

- As the cycling slide reaches the limit in its movement in the direction of the pickup arm pivot, the stop dog mounted on the slide engages the rotating ratchet wheel (53).
- The ratchet wheel and separator shaft (6) then remains stationary and the turntable continues to rotate.
- The separator shelves and knives are coupled together in such a manner that the flattened end of the separator shaft pushes the knives out, which in turn pulls the opposite shelves in.
- As the shelves recede, the separator knives mounted above the shelves move out and separate the lower record of the stack and support the remaining records while the lower record drops to the turntable.

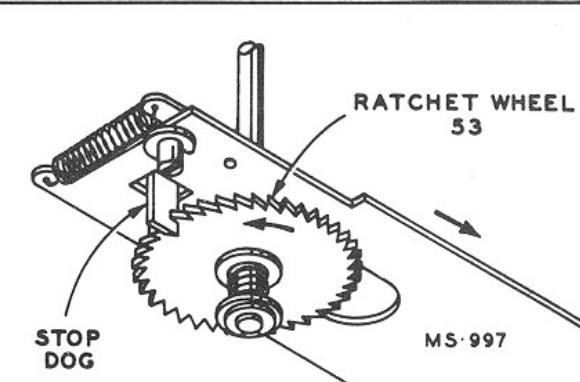


Fig. 8

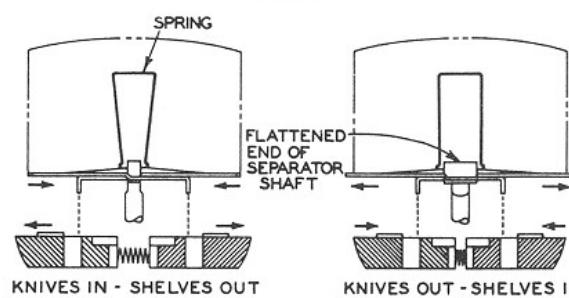


Fig. 9

Pickup moves in for landing.

- The cycling slide moves away from the pickup arm pivot, due to the force produced by the tension spring (89) keeping the eccentric cycling cam against the rotating knurled roller (62). The knurled roller at this time is returning to the smaller diameter of the cam.
- The stud on trip lever assembly follows the slide due to the force produced by the action of the pickup arm return lever.
- After the slide has moved back a short distance the stud on the trip lever assembly no longer follows the slide since the landing adjustment stud comes against the curved stop on the end of the pickup arm return lever. At this moment the pickup is directly above the point of landing.
- As the cycling slide completes the return movement the elevating rod slides down the incline which lowers the stylus on the record.

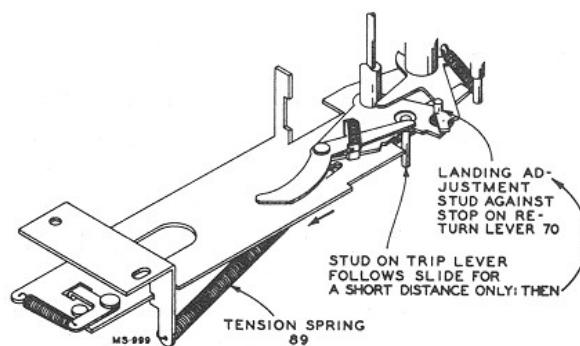


Fig. 10

Cycle completed and the record plays.

1. The tab on the cycling slide contacts and opens the muting switch.
2. The stud on the cycling slide pushes pickup arm return lever back to permit free motion of the pickup arm.
3. The change cycle is completed as the cycling slide comes against the stop bracket, at which time the knurled roller rotates in the cut away section of the cam.
4. As the record plays and the pickup arm moves inward.
5. When the stylus reaches the end of the selection the end of the trip lever contacts the stud on the cycling cam, and pushes it slightly.
6. The slight movement of the cycling cam causes engagement with the rotating knurled roller, thereby starting a change cycle.
7. The mechanism repeats the preceding sequence of operations until the last record of the stack has dropped and has been played. This selection will be repeated until the pickup is lifted and placed on the rest.

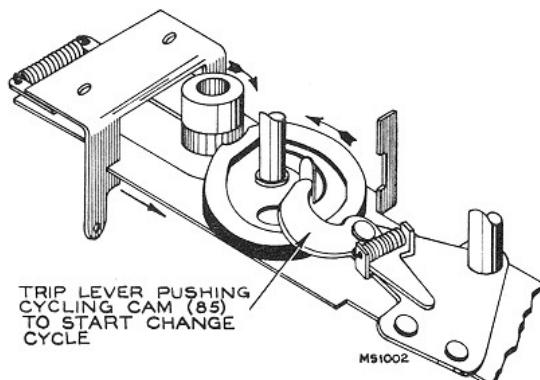


Fig. 13

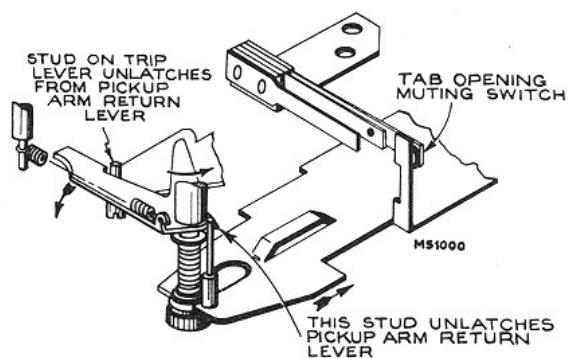


Fig. 11

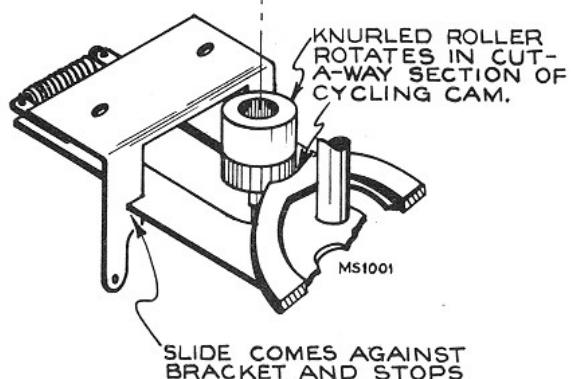
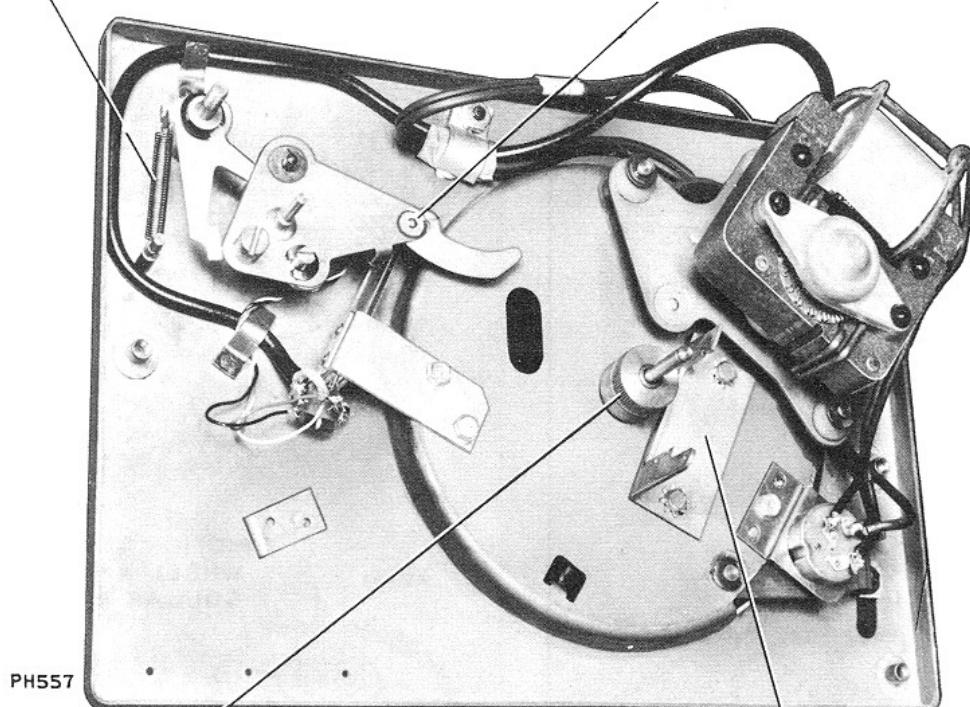


Fig. 12

## DO YOU KNOW?

IF THIS SPRING IS LOOSE OR MISSING, PICKUP WILL NOT LAND PROPERLY

IF THERE IS A BIND IN THIS PIVOT, MECHANISM MAY NOT TRIP



IF THIS KNURELL ROLLER IS LOOSE, MECHANISM MAY FAIL TO COMPLETE CYCLE

IF THIS BRACKET IS IMPROPERLY ADJUSTED, THE CYCLING SLIDE MAY BIND OR CONTINUOUS TRIPPING MAY RESULT

Fig. 14

## DO YOU KNOW?—Continued

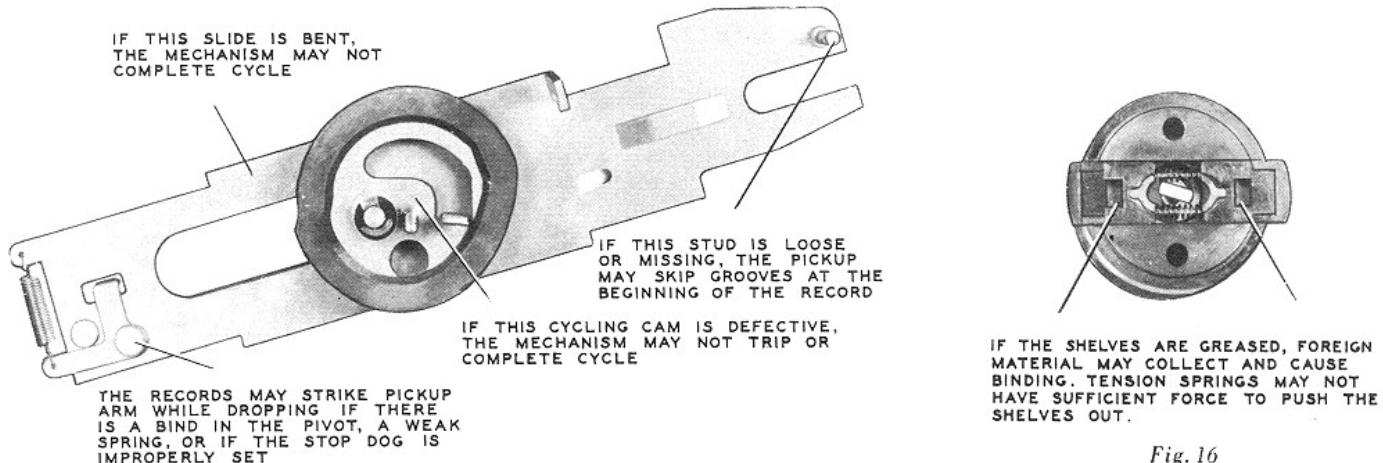


Fig. 15

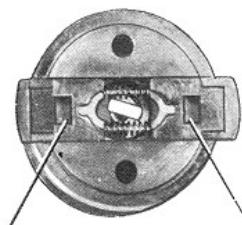


Fig. 16

## SERVICE HINTS

## REJECT CONTROL FAILS TO OPERATE

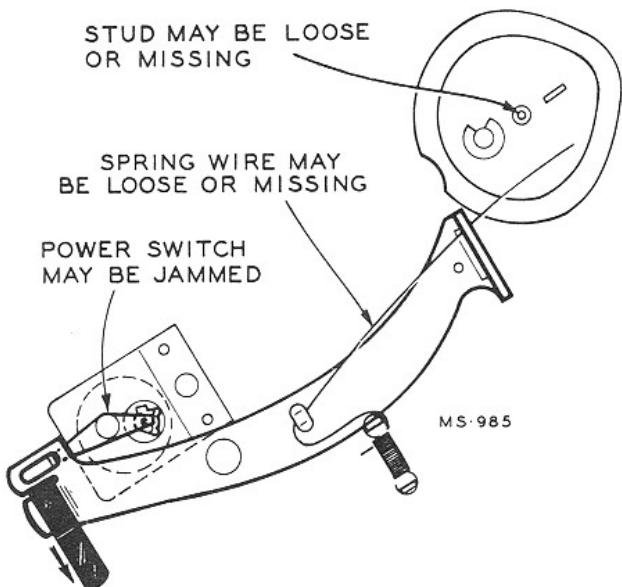


Fig. 17

## MECHANISM FAILS TO SEPARATE RECORDS PROPERLY

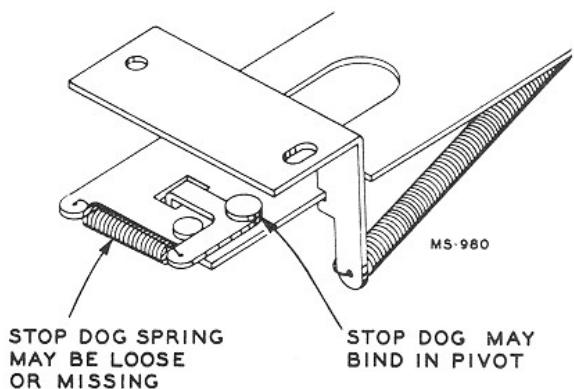


Fig. 18

## RECORD STRIKES PICKUP ARM WHEN DROPPING

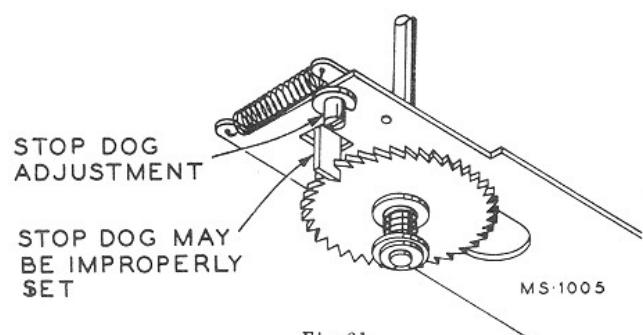
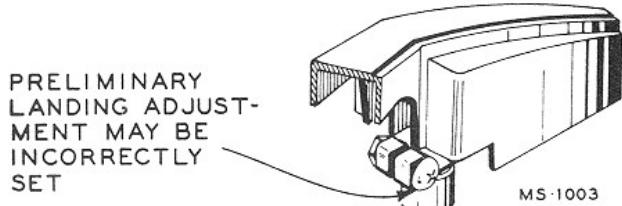


Fig. 21

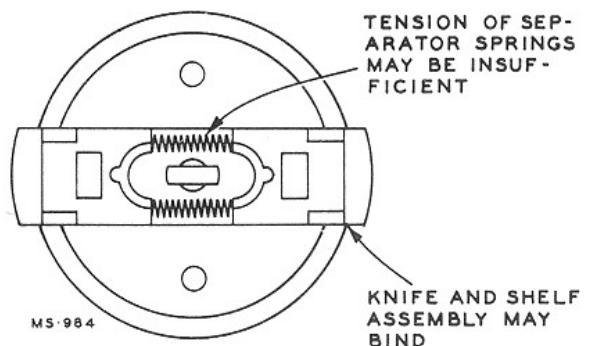


Fig. 19

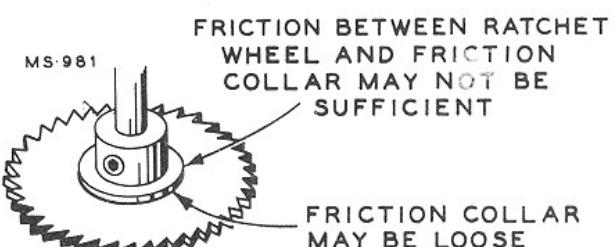


Fig. 20

## PICKUP FAILS TO LAND PROPERLY

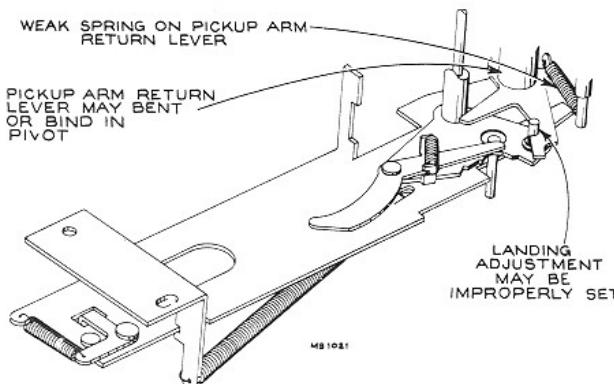


Fig. 22

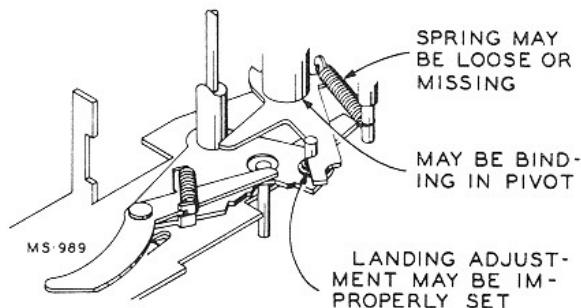


Fig. 23

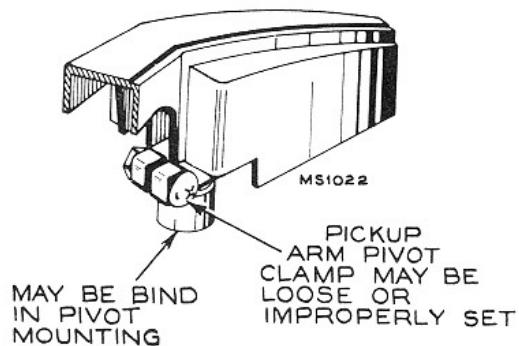


Fig. 24

## DISTORTED OR NO OUTPUT

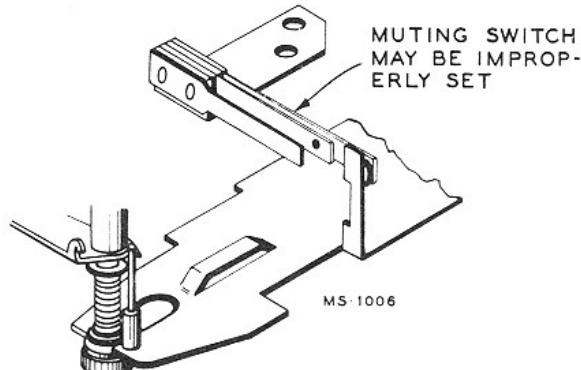


Fig. 28

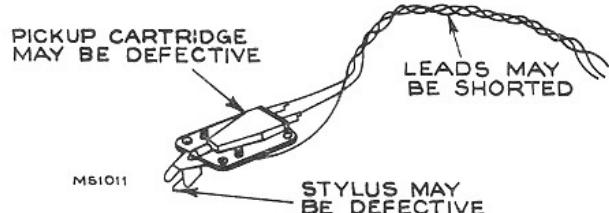


Fig. 29

## PICKUP SKIPS GROOVES

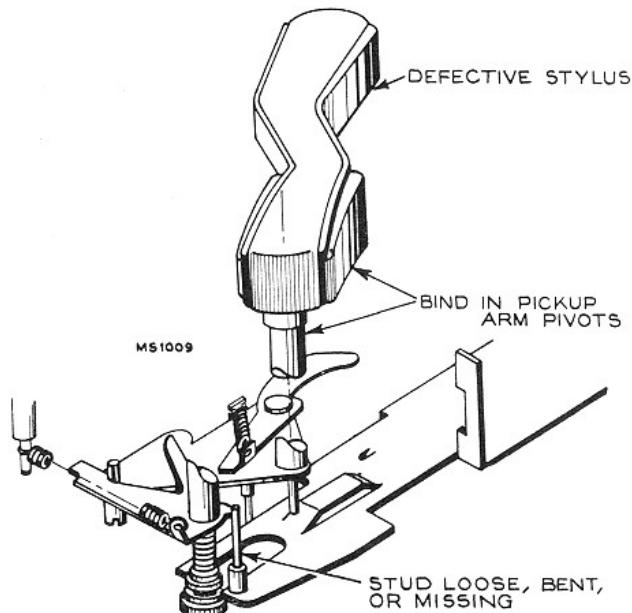


Fig. 25

## MECHANISM FAILS TO TRIP

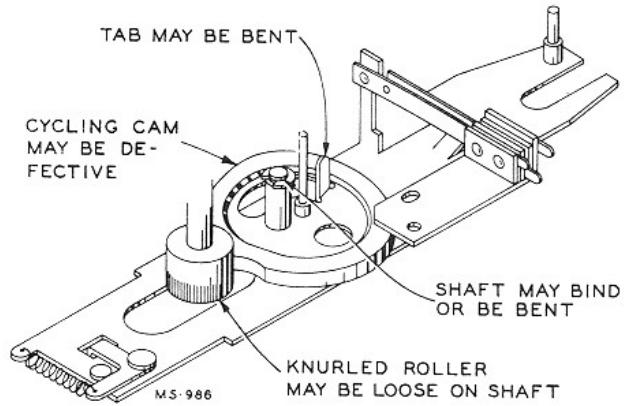


Fig. 26

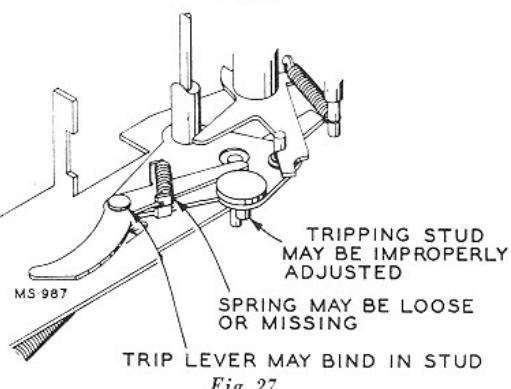


Fig. 27

## PREMATURE TRIPPING

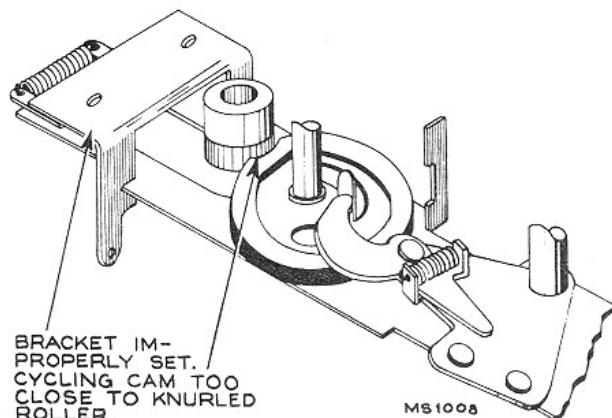
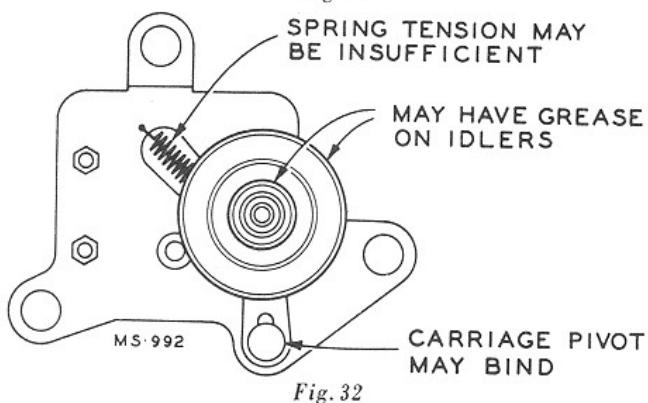
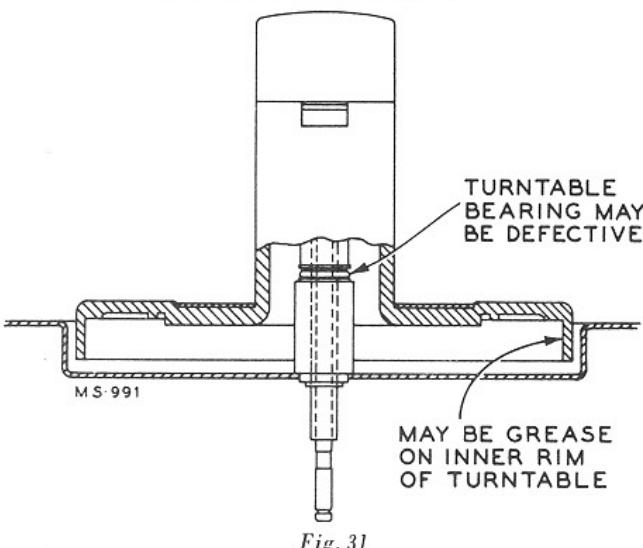
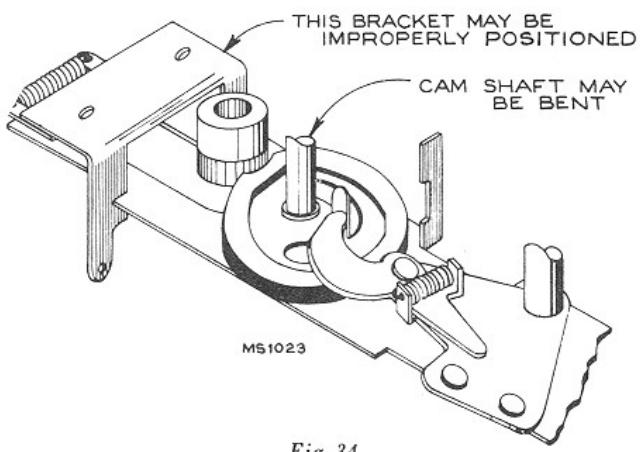


Fig. 30

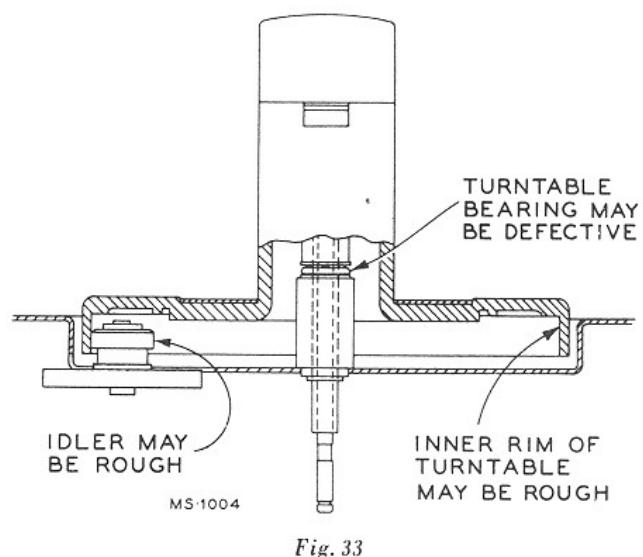
## "WOW" OR SPEED VARIATION



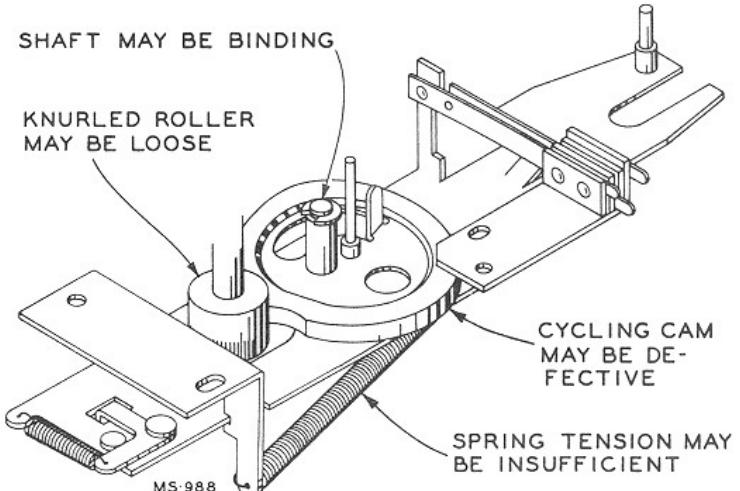
## CONTINUOUS TRIPPING



## RUMBLE

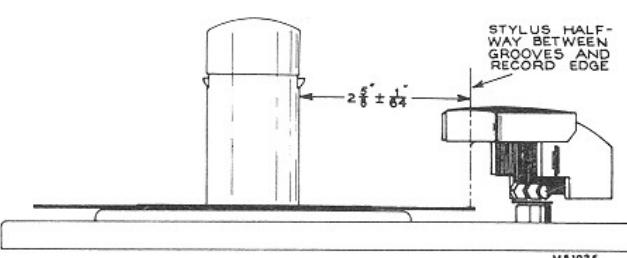


## MECHANISM FAILS TO COMPLETE CYCLE

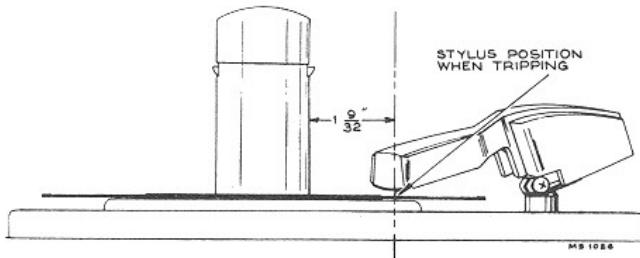


## ADJUSTMENTS

## LANDING



## TRIPPING



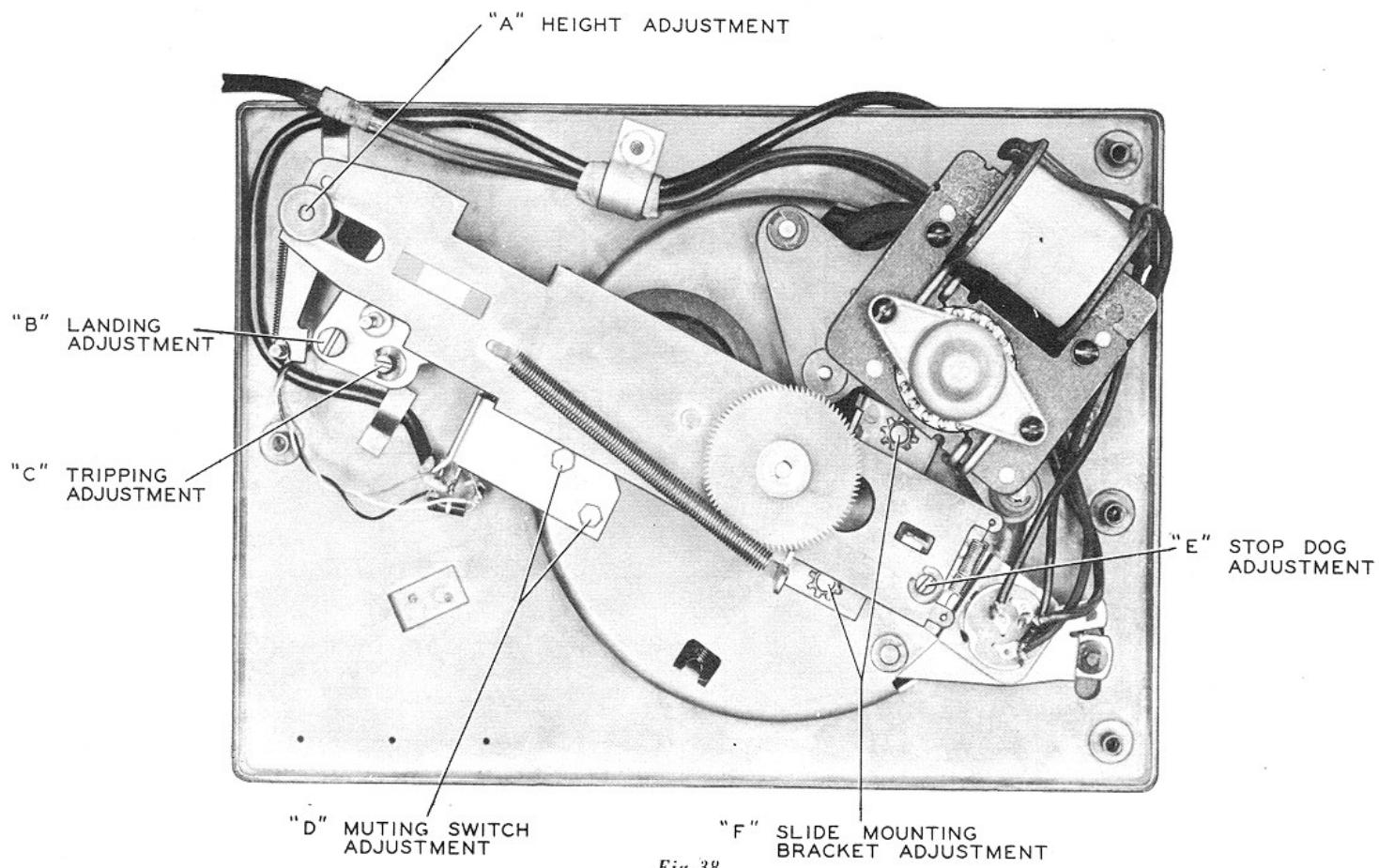


Fig. 38

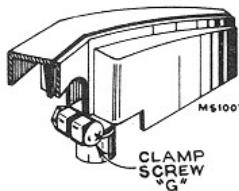


Fig. 39

## Adjustments

### Pickup Landing Adjustment:

Under ordinary conditions the landing adjustment is a screwdriver adjustment as shown. The adjustment of eccentric landing adjustment stud (B) gives approximately a  $\frac{1}{4}$ " movement. (See Figs. 38, 40.)

If, however, the pickup arm has been removed it is first necessary to make an approximate landing adjustment as follows:

1. With the mechanism out of cycle and the clamp screw (G) (Fig. 39) loose, place pickup arm on the rest and tighten clamp screw enough to prevent the clamp from slipping on the shaft.
2. Set the landing adjustment stud (B) as shown (mid-adjustment). (See Figs. 40, 41.)
3. With the power removed, push reject control to reject. Rotate turntable by hand in the correct direction until the pickup is about ready to land.
4. Loosen clamp screw (G) and move pickup arm so the stylus is approximately  $2\frac{5}{8}$ " from side of centerpost. Tighten clamp screw. (See Figs. 36, 39.)
5. Exact landing adjustment can now be made by a screwdriver on stud (B). (See Fig. 38.)

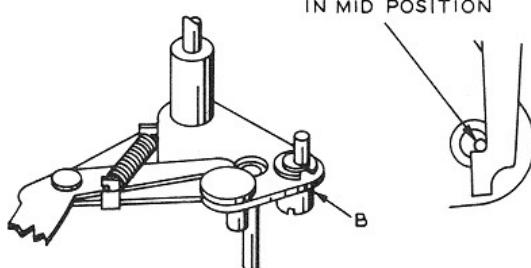


Fig. 40

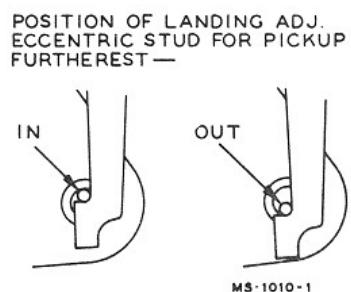


Fig. 41

### Pickup Height Adjustment (See Fig. 38):

Adjust knurled nut (A) until the distance (during change cycle) between the top of the turntable and the stylus point is approximately  $1\frac{1}{8}$ ".

**NOTE:** If unable to adjust for sufficient height, it may be necessary to cut a few turns from the compression spring to allow more space on the shaft.

### Tripping Adjustment (See Figs. 37, 38):

Adjust the eccentric tripping stud (C) until the mechanism trips when the stylus is  $1\frac{9}{32}$ " from the side of the centerpost.

### Mounting Bracket Adjustment (See Fig. 38):

Loosen the two screws (F) and move the bracket so it is as near perpendicular to the slide as possible. Move back or forward until the cut away section of the cycling cam clears the knurled roller approximately  $1/16$ ". Tighten screws.

### Muting Switch Adjustment (See Fig. 38):

Loosen the two screws (D) and adjust the position of the switch so the contacts are approximately  $1/32$  to  $1/16$  inches apart when the mechanism is out of cycle. If the mounting screws do not give sufficient adjustment, bend tab on slide slightly.

### Stop Dog Adjustment (See Fig. 38):

Turn the eccentric screw (E) until the record drops to the turntable without striking the pickup arm.

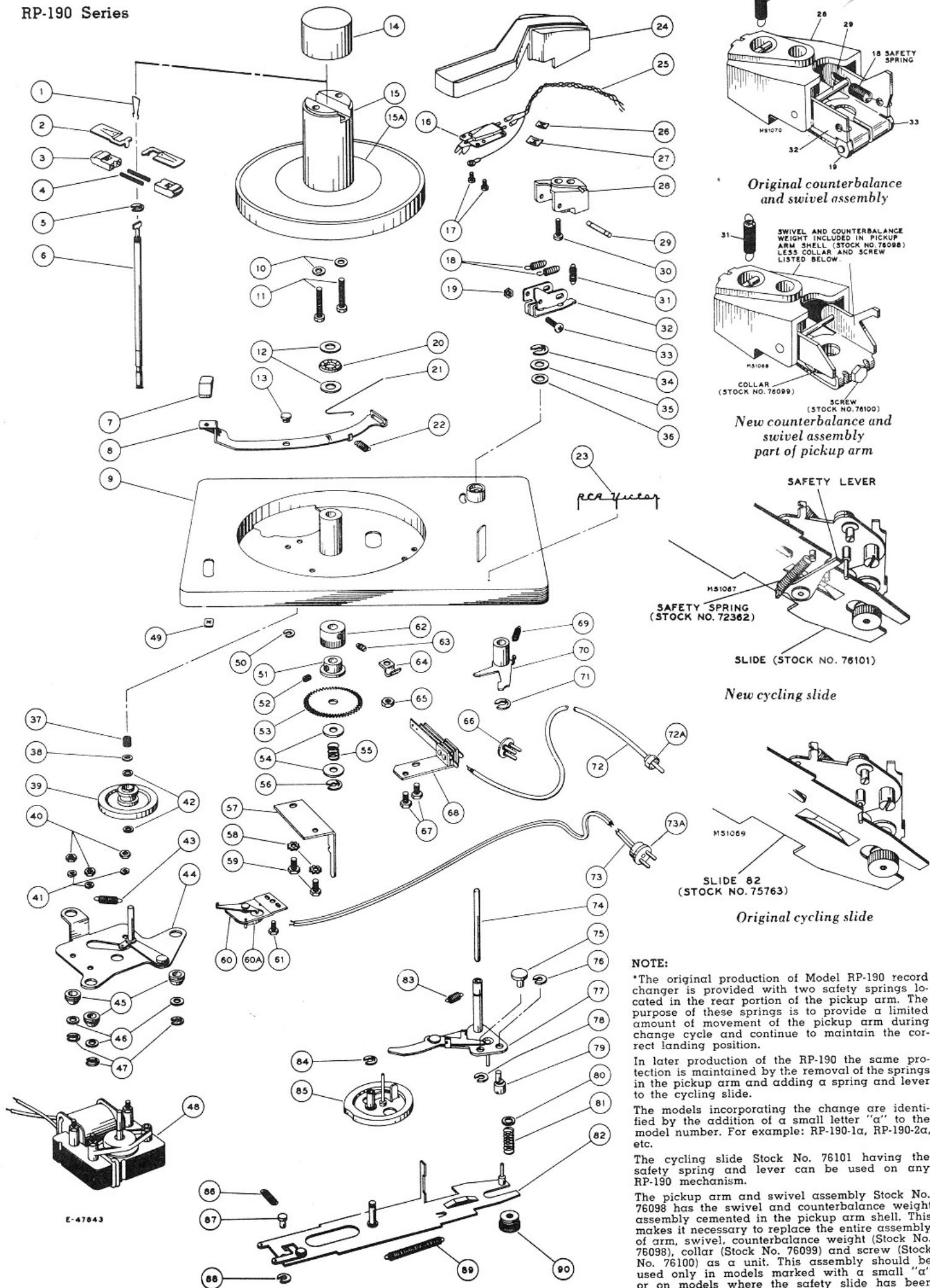


Fig. 42

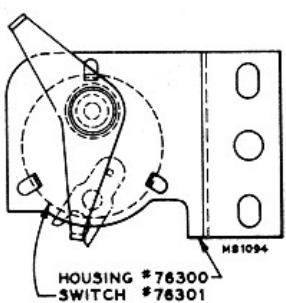
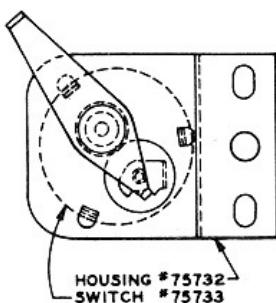
## REPLACEMENT PARTS

RP-190 Series

| ILL.<br>No. | STOCK<br>No. | DESCRIPTION  | ILL.<br>No. | STOCK<br>No. | DESCRIPTION  |
|-------------|--------------|--|-------------|--------------|--|
| 1           | 74862        | Spring—Spindle nose spring—formed  | 21          | 75740        | Spring—Reject lever spring (formed), part of reject lever  |
| 2           | 74864        | Separator—Separator knife  | 22          | 75742        | Spring—Reject lever return spring (.180" O.D. x .535"—21½ turns)   |
| 3           | 74865        | Shelf—Separator shelf  | 23          | 74782        | Emblem—"RCA Victor" emblem (maroon)  |
| 4           | 75756        | Spring—Separator shelf return spring (.118" O.D. x ¾"—16 turns)  | 23          | 76726        | Emblem—"RCA Victor" emblem (red)   |
| 5           | 33726        | Washer—"C" washer to hold separator shaft and cam  | 23          | 77033        | Nameplate — RCA Victor nameplate RP-190B-1   |
| 6           | 75757        | Shaft—Separator shaft with cam   | 23A         | 77013        | Nut—Speed nut for nameplate RP-190B-1  |
| 7           | 75741        | Knob—Control knob (maroon)   | 24          | *75719       | Arm—Pickup arm shell only (see note)   |
| 7           | 76725        | Knob—Control knob (red)  | 24          | 76098        | Arm—Pickup arm (black) (late type) complete with counterbalance, swivel and pin—less collar, pickup and cable (see note) |
| 7           | 100159       | Knob—Control knob (grey) RP-190B-1   | 24          | 76709        | Arm—Pickup arm (red) complete with counterbalance, swivel and shaft—less pickup and cable                                |
| 8           | 75739        | Lever—Reject lever complete with formed spring   | 24          | 100161       | Arm—Pickup arm shell only RP-190B-1  |
| 9           | 75729        | Board—Motorboard sub-assembly complete with welded and/or staked studs and rest                                    | 24A         | 100162       | Emblem—Pickup arm RCA emblem RP-190B-1   |
| 9           | 76724        | Board—Motorboard (ivory) complete with welded and/or staked studs and rest   | 24A         | 76099        | Collar—Pickup arm pivot shaft collar—less screw—for late type pickup arm   |
| 9           | 100158       | Board—Motorboard sub-assembly with welded and/or staked studs and pickup rest (light rose gold finish) RP-190B-1   | 25          | 75728        | Cable—3-wire twisted pickup arm cable complete with connectors for all models using crystal pickups                      |
| 10          | 74869        | Washer—No. 6 flat washer for under head of screws No. 75758  | 25          | 76298        | Cable—3-wire twisted pickup arm cable complete with connectors for RP-190-5 using ceramic pickup                         |
| 11          | 75758        | Screw—No. 6-32 x 1" fillister head machine screw (holds nose to spindle)   | 25          | 74066        | Cable—3-wire twisted pickup cable complete with connectors RP-190B-1   |
| 12          | 74080        | Washer—Thrust bearing washer   | 26          | 71095        | Nut—Speed nut for cable—in rear of arm   |
| 13          | 75748        | Stud—Reject lever mounting stud  | 27          | 72765        | Nut—Speed nut for cable—in center of arm   |
| 14          | 75755        | Cap—Spindle nose cap—red   | 28          | *75721       | Weight—Counterbalance weight—die cast (see note)   |
| 14          | 100163       | Cap—Spindle nose cap (smokey pearl grey) RP-190B-1   | 28          | 77572        | Swivel—Swivel and counterbalance for pickup arm RP-190B-1  |
| 15          | 75753        | Turntable—Turntable (black) and shaft assembly complete with finished disc   | 29          | *75724       | Pin—Pin for anchoring shock absorbing springs (see note)   |
| 15          | 76727        | Turntable—Turntable (red) and shaft complete with finished disc  | 30          | *75723       | Screw—No. 6 x 11/16" fillister head screw to fasten counterbalance (see note)  |
| 15A         | 75754        | Disc—Finished disc for turntable—part of No. 75753 and 76727   | 31          | 75886        | Spring—Counterbalance spring (.180" O.D. x .600"—30 turns for all models using crystal pickups                           |
| 16          | 74067        | Pickup—Crystal pickup cartridge complete with stylus (RMP 128-1) for RP-190-1, -3, -4, -6, RP-190A-2 and RP-190B-1 | 31          | 74060        | Spring—Counterbalance spring (.171" O.D. x .695"—43 turns for RP-190-5 using ceramic pickup                              |
| 16          | 79791        | Pickup—Ceramic pickup cartridge complete with stylus—for RP-190A-3   | 32          | *75720       | Swivel—Pickup arm swivel (see note)  |
| 16          | 75575        | Pickup—Crystal pickup cartridge complete with stylus (RMP 128-4) for RP-190-2 and RP-190A-1                        | 33          | *75726       | Screw—No. 8-32 x 5/8" cross recessed pan head machine screw to mount pickup arm swivel No. 75720                         |
| 16          | 76297        | Pickup—Ceramic pickup cartridge complete with stylus for RP-190-5  | 33          | 76100        | Screw—No. 6-32 x 1/4" hex head machine screw for pivot shaft collar No. 76099  |
| 16A         | 74069        | Guard—Stylus guard for No. 74067 pickup  | 34          | 35969        | Washer—"C" washer to mount trip lever  |
| 16A         | 74819        | Guard—Stylus guard for No. 75575 pickup  | 35          | 75752        | Washer—Steel thrust washer   |
| 16B         | 74065        | Screw—No. 2-56 x 3/16" fillister head screw to mount No. 74069 or No. 74819 guard                                  | 36          | 76005        | Washer—Bearing washer for pickup arm   |
| 16C         | 79849        | Stylus—Sapphire stylus (1 mil) for No. 79791 pickup  | 37          | 74870        | Retainer — Idler wheel retainer (spring sleeve type)   |
| 16C         | 74068        | Stylus—Replacement stylus and holder for No. 74067 pickup  | 37          | 100156       | Retainer — Idler wheel retainer (spring sleeve type) RP-190B-1   |
| 16C         | 75770        | Stylus—Replacement stylus and holder for No. 75575 pickup  | 38          | 100157       | Washer—Spring washer for idler wheel assembly RP-190B-1  |
| 16C         | 74985        | Stylus—Replacement stylus for No. 76297 pickup   | 38          | 75887        | Washer—Spring washer for idler wheel   |
| 16D         | 74230        | Nut—Nut and washer to mount No. 74068 or No. 75770 stylus  | 39          | 74077        | Wheel—Idler wheel  |
| 17          | 75722        | Screw—No. 4 x 1/4" fillister headscrew to mount pickup   | 40          | —            | Nut—No. 6-32 hex nut for mounting motor to idler lever plate assembly  |
| 18          | *75727       | Spring—Shock absorbing spring (.187" O.D. x ¾") (see note)   | 41          | —            | Lockwasher—No. 6 split lockwasher for No. 6-32 hex nut   |
| 19          | *75725       | Nut—No. 8-32 hex nut to mount pickup arm (see note)  | 42          | 74078        | Washer—Dampening washer for idler wheel  |
| 20          | 72349        | Bearing—Trust bearing  |             |              |  |

\*SEE NOTE ON PAGE 10

| ILL.<br>No. | STOCK<br>No. | DESCRIPTION  | ILL.<br>No. | STOCK<br>No. | DESCRIPTION  |
|-------------|--------------|--|-------------|--------------|--|
| 43          | 75762        | Spring—Idler wheel tension spring (.195" O.D. x 29/32"—37½ turns)                                | 63          | 75751        | Screw—No. 10-32 x 17/64" headless set screw—dog point—for knurled roller   |
| 44          | 75759        | Plate—Motor mounting plate complete with idler lever   | 64          | —            | Clamp—Cable clamp for audio cable  |
| 45          | 75761        | Grommet — Rubber grommet for motor mounting plate  | 65          | —            | Nut—No. 8-32 hex nut to fasten cable clamp ILL. 64   |
| 46          | 75749        | Washer—Flat washer—metal (.0299" x .190"   | 66          | 74192        | Connector—3 contact male connector for audio cable   |
| 47          | 33726        | Washer—"C" washer to mount motor assembly I.D. x ¾" O.D.)—for mounting motor                     | 67          | —            | Same as 61   |
| 48          | 75760        | Motor—117 volt, 60 cycle motor for all models except RP-190-3 and RP-190-5                       | 68          | 75730        | Switch—Muting switch   |
| 48          | 75937        | Motor—85 volt, 60 cycle motor for RP-190-3 (used in some Model 45-EY-3)                          | 69          | 76004        | Spring—Pickup arm return lever spring (.195" O.D. x 1¼"—69 turns)  |
| 43          | 76299        | Motor—117 volt, 60 cycle motor for RP-190-5 (less conversion spring)                             | 70          | 75734        | Lever—Return lever   |
| —           | 76302        | Spring—Conversion spring sleeve (60 to 50 cycle) for use on No. 76299 motor in RP-190-5          | 71          | 35969        | Washer—"C" washer to mount return lever  |
| 49          | 74212        | Nut—Control knob speed nut   | 72          | —            | Cable—Shielded audio cable (see Service Data for various instruments)  |
| 50          | 74431        | Washer—Spring washer to mount reject lever mounting stud   | 72          | 74545        | Cable—Audio cable complete with plug RP-190B-1   |
| 51          | 75736        | Collar—Friction collar   | 72A         | 31048        | Plug—Pin plug for audio cable  |
| 52          | 14974        | Screw—No. 8-32 x 3/16" hex socket head—cup point—for friction collar                             | 73          | —            | Power cord (see Service Data for various instruments)  |
| 53          | 75738        | Wheel—Ratchet wheel  | 73          | 70392        | Cord—Power cord and plug RP-190B-1   |
| 54          | 75750        | Washer — Flat washer — metal (.0299" x .180" I.D. x 9/16" O.D.)—for ratchet wheel, thrust spring | 73A         | 30870        | Connector—2 contact male connector for power cable   |
| 55          | 75743        | Spring—Ratchet wheel thrust spring (5/16" O.D. x 7/16"—5½ turns)                                 | 74          | 75731        | Rod—Elevating rod  |
| 56          | 33726        | Washer—"C" washer to mount ratchet wheel   | 75          | 75768        | Stud—Tripping adjustment stud  |
| 57          | 75735        | Bracket—Mounting bracket for slide assembly  | 76          | 74431        | Washer—Spring washer for adjusting studs   |
| 58          | —            | Lockwasher—No. 8 external teeth lock-washer for cycling slide mounting bracket                   | 77          | 75767        | Lever—Trip lever assembly—less spring and tripping and landing adjustment studs  |
| 59          | 74670        | Screw—No. 8 x ¾" self-tapping hex head screw to mount slide assembly bracket                     | 78          | 74431        | Washer—Spring washer for adjusting studs   |
| 60          | 75732        | Housing—"On-Off" switch housing and lever—less switch No. 75733                                  | 79          | 75769        | Stud—Landing adjustment stud   |
| 60          | 76300        | Housing — "On-Off" switch housing and lever—less switch No. 76301                                | 80          | 75749        | Washer—Flat washer—metal (.0299" x .190" I.D. x ¾" O.D.)—to mount sub-motor-board  |
|             |              |  | 81          | 75746        | Spring—Height adjustment spring (.262" O.D. x 13/16"—8 turns)  |
|             |              |  | 82          | *75763       | Slide—Cycling slide assembly complete with stop dog—less cam wheel and stop dog adjusting stud (see note)  |
|             |              |  | 82          | 76101        | Slide—Cycling slide (late type) complete with stop dog and safety lever—less cam wheel, safety spring, stop dog spring and stop dog adjusting stud |
|             |              |  | 82A         | —            | Dog—Stop dog—part of Item 82   |
|             |              |  | 82B         | 72362        | Spring—Safety lever actuating spring (.242" O.D. x 1"—19½ turns) for slide No. 76101   |
|             |              |  | 83          | 75742        | Spring—Trip lever spring (.180" O.D. x .535"—21½ turns)  |
|             |              |  | 83          | 78711        | Spring—Trip lever spring RP-190B-1   |
|             |              |  | 84          | 33726        | Washer—"C" washer for cam wheel  |
|             |              |  | 85          | 75764        | Wheel—Cam wheel and tire   |
|             |              |  | 86          | 75765        | Spring—Stop dog tension spring (.195" O.D. x 11/16"—24½ turns)   |
| 60A         | 75733        | Switch—"On-Off" switch—less housing No. 75732  | 87          | 75766        | Stud—Adjusting stud for stop dog   |
| 60A         | 76301        | Switch—"On-Off" switch—less housing No. 76300  | 88          | 74431        | Washer—Spring washer for stop dog adjusting stud   |
| 61          | —            | Screw—No. 8 x ¼" self-tapping hex head screw to mount "On-Off" switch                            | 89          | 75744        | Spring—Slide assembly return spring (¼" O.D. x 2 23/32"—90 turns)  |
| 62          | 75737        | Roller—Knurled roller  | 90          | 75747        | Nut—Knurled nut for height adjustment  |



APPLY TO YOUR RCA DISTRIBUTOR FOR PRICES OF REPLACEMENT PARTS

| ILL.<br>No. | STOCK<br>No. | DESCRIPTION   | ILL.<br>No. | STOCK<br>No. | DESCRIPTION  |
|-------------|--------------|---|-------------|--------------|--|
|             | 100160       | Board—Terminal board (RP-190B-1)  |             | *76100       | Screw—#6x32x $\frac{1}{4}$ hex head machine screw for pivot collar |
|             | 502510       | Resistor—1 megohm composition resistor, $\frac{1}{2}$ watt                  |             | *74453       | Washer—Bearing washer under cam wheel and tire                     |
|             | *76099       | Collar—Pickup arm pivot shaft collar (used with new type pickup arm swivel) |             |              |  |

\*SEE NOTE ON PAGE 10

## SERVICE HINTS

## Care of Pickup

LINT MAY COLLECT TO CLOG THE OPENING IN THE GUARD AT THE STYLUS POINT AND CAUSE POOR RECORD REPRODUCTION. This may require occasional cleaning of the guard opening—clean by carefully brushing with a small soft brush.

## Replacement of Stylus

**Caution:** Never bend the stylus support wire.

## CRYSTAL PICKUPS (Stock Nos. 74067 and 75575)

Remove the two screws holding sapphire guard in place and remove the guard. Remove the small nut and washer on the threaded shaft of the sapphire holder and gently push the shaft through the hole in the armature shaft until the sapphire holder assembly comes free.

Extreme care should be used when loosening the nut so that the twisting motion does not break the crystal. Take hold of the lower end of the shaft with a pair of pliers while loosening or tightening the nut, being very careful so as not to strip the threads or break the crystal.

Insert threaded shaft of replacement sapphire holder through armature shaft and replace the washer and nut. Make sure that the sapphire is in the correct position.

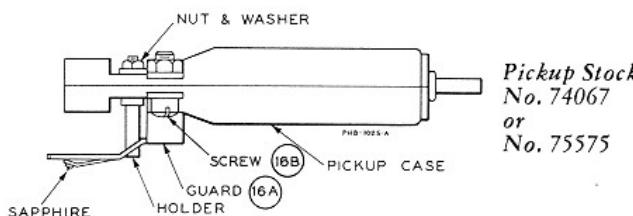
Replace the sapphire guard, positioning it by means of the oversize screw slots. Make certain that the sapphire and its supporting wire are centered in the guard. Tighten the guard screws. Before using, check to see that the sapphire projects far enough beyond the guard so that the guard will not touch the record. If necessary, bend the guard a little.

## CERAMIC PICKUP (Stock No. 76297)

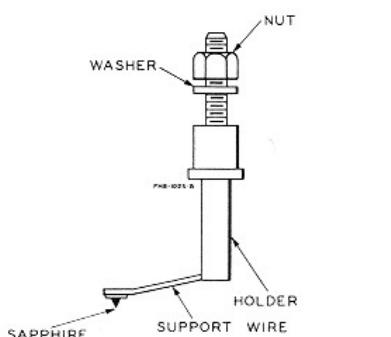
To remove stylus, insert the point of a knife blade between the stylus wire and the case. The stylus may be pried out of its rubber mounting with a twisting motion of the knife blade. To replace stylus, push end of stylus wire down into its rubber mounting. Be certain that the stylus is centered in the groove of the pickup case.

## CERAMIC PICKUP (Stock No. 79791)

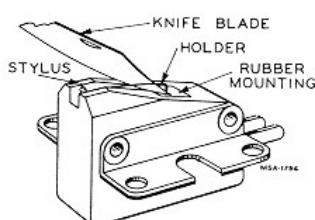
To remove stylus, grip with tweezers at back end and pull away from the pickup. The shank of the stylus holder is imbedded in a rubber block which is set in a "U" shaped spring clip. This spring clip holds the stylus assembly to a plastic support. The shank of the stylus rests in a metal saddle. When replacing stylus, make certain that shank rests firmly in saddle.



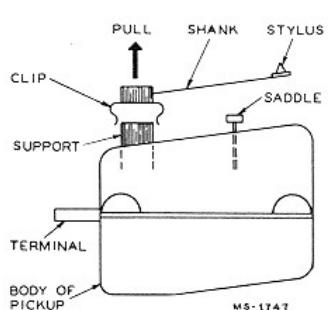
Pickup Stock  
No. 74067  
or  
No. 75575



Sapphire Stock  
No. 74068



Sapphire Stock  
No. 74985  
Pickup Stock  
No. 76297



Sapphire Stock  
No. 79849  
Pickup Stock  
No. 79791